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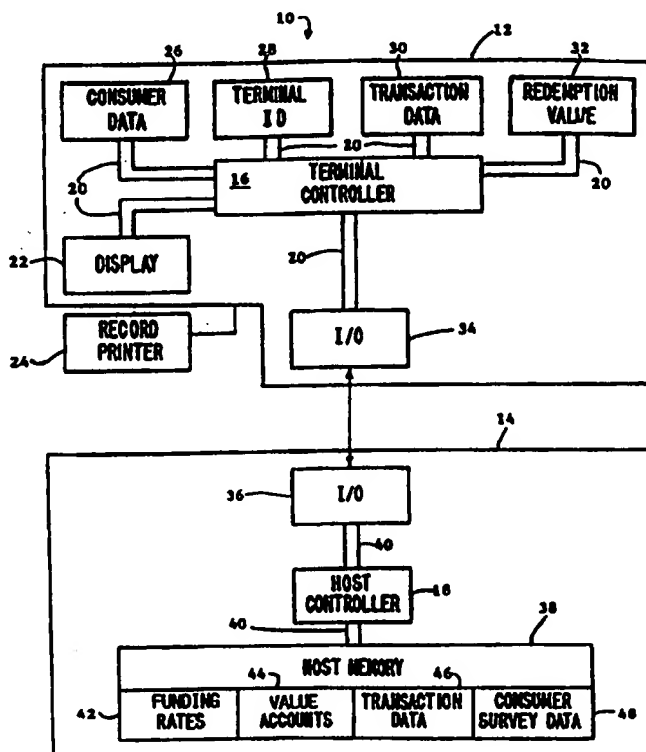
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(54) Title: POINT OF SALE PURCHASING VALUE ACCUMULATION SYSTEM

(57) Abstract

A neutrally branded, multi merchant redeemable purchasing value accumulation system (10) is provided covering all forms of payment, integrated with the point of sale, and providing real-time earning and redemption of redeemable purchasing value at the point of sale. According to one embodiment, the system (10) includes an authorized point of sale transaction terminal (12), a host memory (38) located remote from the authorized point of sale transaction terminal (12), and a host controller (18) located remote from and in communication with the authorized point of sale transaction terminal (12). A purchasing value banking system (100) is provided comprising a merchant system (105) incorporating a merchant terminal (116), a bank host (104) incorporating a bank account data storage device (114) and an authorization number source (112), and a purchasing value banking system host (102) in communication with the merchant system (105) and the bank host (104).



POINT OF SALE PURCHASING VALUE ACCUMULATION SYSTEM

BACKGROUND OF THE INVENTION

5 The present invention relates to a neutrally
branded, multi merchant frequent shopper program
covering all forms of payment and integrated with the
point of sale.

10 Conventional frequent shopper systems or programs,
i.e., systems where a consumer accumulates points or
cash based upon the consumer's expenditures, have been
problematic for a variety of reasons. A system where
points are awarded as a function of the consumer's
15 expenditures is problematic because the consumer does
not accumulate real purchasing value. Rather, the
consumer merely accumulates points which have a real
value set arbitrarily by the particular company awarding
the points. Further, the options for redeeming or
20 spending the points are often limited to a predetermined
catalog of merchandise or services. Finally, the
accumulated points are often subject to expiration or
devaluation if they are not spent by a certain date.

25 Some frequent shopper systems, including the system
disclosed in U.S. Patent No. 5,287,268, provide for
accumulation of an actual cash balance. However, these
systems are problematic because the cash balance is not
immediately accessible by the consumer at the point of
sale. Rather, the consumer is either sent a check for
the accumulated amount at the end of a specified period
30 or may access the money through an electronic terminal
at the end of a specified period. Further, in the case
of the frequent shopper system described in U.S. Patent
No. 5,287,268, although a cash balance is accumulated as
a percentage of the consumer's expenditures, the

services at a relatively low cost.

BRIEF SUMMARY OF THE INVENTION

According to the present invention, a redeemable
5 purchasing value accumulation system is integrated with
a point of sale and provides real time earning and
redemption of purchasing value at the point of sale.
Further, a purchasing value banking system is provided
comprising a merchant system, a bank host, and a
10 purchasing value banking system host in communication
with the merchant system and the bank host. Banking
operations are performed by selecting an operation at a
merchant terminal within the merchant system and by
communicating the selection to the bank host via the
15 purchasing value banking system host. In this manner,
banking services are expanded at low cost by coupling
the bank host to a purchasing value banking system
created and maintained under a separate cost center or
merely by coupling the bank host to existing purchasing
20 value system hardware.

In accordance with one embodiment of the present
invention, a point of sale redeemable purchasing value
accumulation system is provided comprising: an
authorized point of sale transaction terminal including
25 a terminal display, a transaction record printer, a
consumer data recording member responsive to a consumer
identifier, a transaction terminal identifier, a
transaction value recording member, a redemption value
recording member, and a transaction terminal data
30 input/output port; a host memory located remote from the
authorized point of sale transaction terminal; and a
host controller located remote from and in communication
with the authorized point of sale transaction terminal
and operative to calculate a transaction credit value
35 based upon a credit rate stored in the host memory and

transaction data and redeemable purchase value account balance data to the selected authorized point of sale transaction terminal.

In accordance with yet another embodiment of the present invention, a neutrally-branded, multi-merchant, frequent shopper system integrated with a consumer point of sale at a plurality of participating merchants and covering all forms of payment is provided comprising: a consumer redeemable purchase value account established for at least one participating consumer; an authorized point of sale transaction terminal located at a selected participating merchant and including a total expenditure value recording member and a redemption value recording member, wherein the redemption value recording member is operative to record a redemption value which may be limited to a value less than or equal to a balance in the consumer redeemable purchase value account; a net expenditure value determining member responsive to the total expenditure value and the redemption value; and a host controller located remote from and in communication with the authorized point of sale transaction terminal and operative to determine a credit value associated with an expenditure transaction processed at the authorized point of sale transaction terminal, the credit value being a function of a credit rate stored at a location remote from the selected participating merchant and a function of the net expenditure value; increase the balance in the consumer redeemable purchase value account in accordance with the credit value; decrease the balance in the consumer redeemable purchase value account in accordance with the redemption value; and issue a transaction receipt indicating the total expenditure value, the redemption value, the net expenditure value, the credit value, and the balance.

In accordance with yet another embodiment of the present invention, a method of accumulating redeemable purchasing value based upon a point of sale transaction is provided comprising the steps of: designating a
5 redeemable purchase value account at an authorized point of sale transaction terminal; transmitting a designated redeemable purchase value account identifier and a transaction value input at the authorized point of sale transaction terminal to a host located remote from the
10 authorized point of sale transaction terminal; calculating a transaction credit value based upon a credit rate stored in a host memory located remote from the authorized point of sale transaction terminal and based upon the transaction value input at the authorized
15 point of sale transaction terminal; increasing an account balance in the redeemable purchase value account based upon the transaction credit value; decreasing an account balance in the redeemable purchase value account based upon a redemption value input at the authorized
20 point of sale transaction terminal; and sending transaction data and redeemable purchase value account balance data from a host located remote from the authorized point of sale transaction terminal to the authorized point of sale transaction terminal.

25 In accordance with yet another embodiment of the present invention, a method of accumulating redeemable purchasing value based upon a point of sale transaction is provided comprising: designating a redeemable purchase value account at a selected one of a plurality
30 of authorized point of sale transaction terminals; transmitting a designated redeemable purchase value account identifier and a transaction value input at the selected authorized point of sale transaction terminal to a host located remote from the plurality of
35 authorized point of sale transaction terminals;

expenditure value and the redemption value; determining a credit value associated with the participating consumer expenditure transaction, the credit value being a function of a credit rate stored at a location remote from the selected participating merchant and a function of the net expenditure value or the total expenditure value; increasing the balance in the consumer redeemable purchase value account in accordance with the credit value; decreasing the balance in the consumer redeemable purchase value account in accordance with the redemption value; and issuing a transaction receipt indicating the total expenditure value, the redemption value, the net expenditure value, the credit value, and the balance.

In accordance with yet another embodiment of the present invention, a method of accumulating redeemable purchasing value based upon a point of sale transaction is provided comprising: calculating a transaction credit value based upon a credit rate stored in a host memory located remote from a first and a second authorized point of sale transaction terminal and based upon a transaction value input at the first authorized point of sale transaction terminal; producing an absolute credit value at the second authorized point of sale transaction terminal; increasing an account balance in a redeemable purchase value account designated at the first authorized point of sale transaction terminal based upon the transaction credit value; increasing the account balance based upon the absolute credit value; decreasing an account balance in the redeemable purchase value account based upon a redemption value input at the authorized point of sale transaction terminal; and sending transaction data and redeemable purchase value account balance data from a host located remote from the authorized point of sale transaction terminal to the authorized point of sale transaction terminal. The

the merchant terminal, (iii) transfer banking operation information and the bank account number from the merchant system to the bank host in response to a banking operation selected at the banking operation interface, and (iv) transfer a banking operation authorization signal from the bank host to the merchant system. The purchase value account information preferably corresponds to a value accumulated as a function of an expenditure transaction executed at a merchant terminal.

In accordance with yet another embodiment of the present invention, a method of executing a banking operation is provided comprising the steps of: identifying a purchase value account number and a bank account number at a merchant terminal; transmitting the purchase value account number and the bank account number to a purchasing value banking system host in communication with the merchant terminal; processing purchase value account information at the purchasing value banking system host as a function of an expenditure transaction executed at the merchant terminal; selecting at least one banking operation at a banking operation interface incorporated in the merchant terminal; transferring information corresponding to the selected banking operation from the merchant terminal to the bank host; and, transferring a banking operation authorization signal from the bank host to the merchant system. The processing step preferably includes the step of accumulating a value as a function of the expenditure transaction.

In accordance with yet another embodiment of the present invention, a merchant terminal is provided to be operative to: identify a purchase value account number and a bank account number; transmit the purchase value account number and the bank account number to a

Fig. 3A is a schematic diagram of a point of sale redeemable purchasing value accumulation system according to the present invention including a plurality of point of sale terminals;

5 Fig. 3B is a schematic diagram of a point of sale redeemable purchasing value accumulation system according to the present invention including a plurality of point of sale terminals and a merchant host;

10 Fig. 4 is an illustration of an authorized point of sale transaction terminal according to the present invention;

Fig. 5 is an illustration of a consumer identification card according to the present invention;

15 Fig. 6 is an illustration of a form by which a consumer identification card may be issued at the point of sale according to the present invention;

Fig. 7 is a schematic diagram of a dual terminal point of sale redeemable purchasing value accumulation system according to the present invention;

20 Figs. 8A and 8B are illustrations of transaction records printed in accordance with the present invention;

Fig. 9 is a schematic block diagram of a purchasing value banking system according to the present invention;

25 Fig. 10 is an illustration of an authorized point of sale transaction terminal for a purchasing value banking system according to the present invention; and

Fig. 11 is a schematic block diagram of a conventional banking system.

30

DETAILED DESCRIPTION OF THE INVENTION

Fig. 1 illustrates the components of a point of sale (POS) redeemable purchasing value accumulation system 10. The POS redeemable purchasing value accumulation system 10 includes an authorized point of sale transaction terminal 12 and a system host 14. The

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record of a transaction or a batch of transactions and preferably provides simultaneous multiple copies of the printed transaction record, e.g., a top copy for the merchant and a bottom copy for the customer. It is contemplated by the present invention that the transaction record printer 24 can be an external printer coupled to the terminal 12 or a printer integrated with the body of the terminal 12.

The consumer data recording member 26, a specific example of which is described in detail below with respect to Fig. 4, provides a means by which a specific consumer identifier and a redeemable purchase value account are designated, selected, or identified at the transaction terminal 12. The redeemable purchase value account balance corresponds to a monetary amount which may be used towards the purchase of goods or services at any one of a plurality of authorized merchants. The transaction data recording member 30, an example of which is also described in detail below with respect to Fig. 4, provides a means by which a specific transaction value and other transaction data is selected or recorded at the transaction terminal 12 and input to the terminal controller 16. Similarly, the redemption value recording member 32, an example of which is described in detail below with respect to Fig. 4, provides a means by which a specific redemption value is selected or recorded at the transaction terminal 12 and input to the terminal controller 16. The transaction terminal identifier 28 is a device, e.g. an electronic memory, which stores a signal indicative of the identity of a particular authorized transaction terminal 12.

Information indicative of the designated specific consumer identifier and redeemable purchase value account, the specific transaction value and other transaction data, the specific redemption value, and the

accumulate a purchasing value amount as an account balance in a redeemable purchase value account reserved for the consumer. First, the consumer indicates a mode of payment, i.e., credit, debit, cash, or check, and the merchant processes the payment at the point of sale and records the mode of payment via the transaction data recording member 30. Next, data specific to the consumer is recorded at the consumer data recording member 26 and the expenditure amount is entered via the transaction data recording member 30. The data so recorded is then sent to the system host 14 for processing. The system host 14, according to data stored in the host memory 38, is operative to: (i) calculate a transaction funding value based upon a funding rate stored in the host memory 38 and based upon the transaction value input at the authorized point of sale transaction terminal 12; (ii) increase the account balance in the consumer's redeemable purchase value account as designated by the consumer data recording member 26 based upon the calculated transaction funding value; and (iii) send transaction data and redeemable purchase value account balance data to the authorized point of sale transaction terminal. The transaction terminal controller 16 subsequently effects printing of a record, see Fig. 8A, via the record printer 24, indicating data which may include the merchant name, the date and time of the transaction, the consumer's redeemable purchase value account number, a card and transaction type, the terminal identification number, an authorization code, a transaction record number, the expenditure or purchase amount, the transaction funding value, and the current redeemable purchase value account balance.

It is contemplated by the present invention that a tip amount may also be entered following the purchase

the event a return transaction results in a negative redeemable account balance, the system is further operative to charge the consumer's system funding account, if one is held by the consumer, accordingly.

5 A redemption blocked consumer identifier may be selected according to the present invention because the host controller is operative to block input of a redemption value when a redemption blocked consumer identifier is detected by the consumer data recording
10 member 26. Additionally, the host controller is operative to activate and inactivate a redemption block for a specific consumer identifier.

Access to consumer redeemable purchase value accounts is limited to transactions including an
15 expenditure or return transaction processed or executed at a point of sale transaction terminal in authorized communication with the host controller. In this manner, redemptions and credits remain within the redeemable purchasing value accumulation system. Authorized
20 consumers, authorized merchants, and authorized terminals are identified as such in the host memory 38. The host memory 38 may be continuously reprogrammed to incorporate additional authorized consumers, merchants, and terminals.

25 Fig. 2 illustrates an embodiment of the present invention wherein the POS cash register 50 is integrated with the authorized point of sale transaction terminal 12 such that all data entries input to the cash register 50 are processed by the terminal controller 16. In this
30 manner, it is not necessary for the clerk at the point of sale to first process the payment at an stand alone cash register and then enter the expenditure amount and the payment mode at the transaction terminal 12 because the expenditure amount and the mode of payment are
35 available for processing by the terminal controller 16

terminals 12. At least one authorized transaction terminal 12 is located at the point of sale of each merchant of an identified set of authorized merchants. The set of authorized merchants and all authorized consumers are identified by the host memory 38. In the POS redeemable purchasing value accumulation system 10 illustrated in Fig. 3A, each of the plurality of transaction terminals 12 is in communication with the system host 14 and the host controller 18. In the POS redeemable purchasing value accumulation system 10 illustrated in Fig. 3B, each of the plurality of transaction terminals 12 is in communication with a merchant host 15 which, in turn, is in communication with the system host 14 and the host controller 18.

When a plurality of authorized transaction terminals are included in the POS redeemable purchasing value accumulation system 10, the host controller 18 is operative to: (i) calculate a terminal specific transaction funding value based upon one of a plurality of host programmed funding rates stored in the host memory 38 and based upon a terminal transaction value input at a selected authorized point of sale transaction terminal 12; (ii) increase an account balance in a redeemable purchase value account designated by the consumer data recording member 26 associated with the selected authorized point of sale transaction terminal 12 based upon the terminal specific transaction funding value; (iii) decrease the account balance in the designated redeemable purchase value account based upon a redemption value input at the selected authorized point of sale transaction terminal 12; and (iv) send terminal specific transaction data and redeemable purchase value account balance data to the selected authorized point of sale transaction terminal 12.

magnetically, optically, or otherwise, on a consumer identification card 60. Fig. 5 is an illustration of the face of a consumer identification card 60 according to the present invention. In addition to the optically or magnetically stored consumer identifier (not shown),
5 the consumer identification card includes a visually recognizable consumer name 62, an identification/account number 64, and a "member since" date 66. The identification card 60 may also include an expiration
10 date (not shown).

After the transaction terminal reads the consumer identifier or after the consumer identifier is manually recorded using the numerical function keys, the transaction value is recorded by the transaction data
15 recording member 30 upon entry of a purchase and/or redemption amount using the numerical function keys. To enter or record a redemption amount at the redemption value recording member 32 a redemption transaction is initiated by depressing the "MERIT REDEMPTION" key and,
20 subsequently, the redemption value is entered using the numerical function keys.

The terminal controller 16 may be set up to initiate a card number and expiration date verification sequence when the identification card 60 is passed
25 through the card reading slot 56. Further, the terminal controller 16 is responsive to a consumer identification card 60 which is operative as one of a credit card, a debit card, a cash/check card, or combinations thereof. Further, the consumer identification card 60 may carry a
30 plurality of consumer identifiers and either the host controller or the transaction terminal is operative to prompt a consumer to select one of the plurality of consumer identifiers at the point of sale. Additionally, the consumer identification card 60 is
35 capable of carrying a consumer identifier representing a

expenditure at the point of sale and a second transaction funding value based upon the consumer's use of the system credit card. It is contemplated by the present invention that the first and second funding values may accumulate in a single redeemable purchase value account. However, it may be preferable to place certain restrictions on the purchasing value balance resulting from the second funding value to increase system versatility. For example, a minimum spending amount may be required before the second funding value is accumulated.

The POS redeemable purchasing value accumulation system 10 of the present invention is also capable of enabling generation of a series of transaction related reports. For example, transaction information is stored in the transaction data storage 46 of the host memory 38 to enable generation of periodic point of sale transaction reports. Each point of sale transaction report, detailing each transaction processed or executed at the particular point of sale terminal, is preferably sent to a manager associated with the point of sale terminal.

Consumer specific survey information, either gathered from the consumer survey section 78 of the instant issue form 70, or otherwise, is stored in the consumer survey data storage 48. The consumer specific data present in the consumer survey data storage 48 is correlated with the transaction information stored in the transaction data storage 46 to enable generation of periodic profile reports detailing the correlated consumer specific survey and transaction data. The periodic profile reports comprise content selected from the group consisting of: a daily transaction recap, a periodic transaction recap summary, a periodic consumer retention analysis, a periodic consumer activity

product or service identifier, e.g. a UPC code, corresponding to each product or service purchased. To facilitate recognition of the specific product or service identifiers, the system host 14 may include a storage device within the host memory 38 dedicated to storing specific product or service identifiers and the corresponding product or service names. In this manner, information generated by the system host 14 and provided to interested parties can include the specific product or service identifiers and the corresponding product or service names. Alternatively, it is contemplated by the present invention that product or service names need not be stored on the system host 14 if a particular interested party has the ability to translate the specific product or service identifier into the corresponding product or service name.

The information generated by the system host 14 as a result of the above-described consumer purchase tracking operation may comprise: (i) a correlation of specific product purchases to point-of-sale purchase locations, individual consumers, or specific retailers; (ii) a correlation of specific consumer to specific retailers or specific point of sale locations; and (iii) combinations and permutations thereof. The information so generated may be made exclusively available to merchants or retailers utilizing the purchasing value accumulation system 10 or made be made available to any interested parties.

Funding rates used in the funding value calculation are stored in the funding rate storage 42 of the host memory 38. The funding rate storage structure enables selection of transaction specific funding rates. For example, a funding rate for computing the resulting transaction funding value may be a function of the transaction value, accumulated transaction values

deleting a batch of transactions stored in the authorized point of sale transaction terminal.

Referring now to Figs. 9 and 10, a purchasing value banking system (PVBS) 100 is illustrated. The PVBS 100
5 includes a PVBS host 102, a bank host 104, and a merchant system 105. The merchant system 105 typically includes a merchant host 106, at least one merchant terminal 116, and a merchant deposit drawer 120, but may
10 merely include a single merchant terminal 116 in direct communication with the PVBS host 102. Each host 102, 104, 106 is controlled by a respective host controller (not shown), as described above with reference to the system host 14. Further, each host 102, 104, 106
15 includes data storage devices (not shown), e.g. digital memories, as described above with reference to the system host 14.

The PVBS host 102 is in communication with the merchant system 105 and the bank host 104. The PVBS host 102 is operative to process purchase value account
20 information as a function of an expenditure transaction executed at the merchant terminal 116. It is contemplated by the present invention that a purchase value account, and the information processed in relation to the purchase value account, comprise any of a variety
25 of account types and associated information related to purchasing value, e.g., points, cash, merchandise, services, etc., accumulated or earned as a function of an expenditure transaction executed at a merchant terminal.

30 In one embodiment of the present invention, the PVBS host 102 and the accompanying purchase value account data storage device 108 are similar to the system host 14 and the redeemable purchase value account balance storage 44 described herein with reference to
35 Figs. 1-8 in that they incorporate any one or all of the

in detail herein with reference to Figs. 1-4 and 7. The merchant terminals 116 are further operative to enable performance of a complete set of banking operations, via the PVBS host 102 and the bank host 104, upon
5 recognition of a valid uni card 118. The merchant host 106 is also operative to debit and credit the merchant deposit drawer 120, indicate an amount to be debited from or credited to the merchant deposit drawer 120, or both.

10 The uni card 118 is a card similar to the consumer identification card 60, shown in Fig. 5, in that it includes at least one purchase value account number 122 embedded or encoded therein. The purchase value account number 122 corresponds to an account held in the
15 purchase value account data storage device 108. Further, the uni card 118 includes at least one bank account number 124 embedded or encoded therein, wherein the bank account number 124 corresponds to an account held in the bank account data storage device 114. It is
20 contemplated by the present invention that an account number may be embedded or encoded on the uni card 118 in the form of a bar code, embossed numbers, a magnetic encoding, or any other available encoding means which permits machine reading or visual reading of the number.

25 The peripheral devices 110 include automated or non-automated devices and any service structures which enhance the operational characteristics of the PVBS host 102. For example, the peripheral devices 110 may enable access to a PVBS host web page or other automated
30 information interface, a purchase value personal financial information source, an automated audio response unit, or an automated or non-automated call center.

The purchasing value banking system (PVBS) 100 is
35 operative to perform the functions of the purchasing

code may be required only where one of the banking operations is to be performed, or may not be required at all.

Referring again to Fig. 9, the manner in which one of the banking operations is performed will be described in detail. Upon recognition of a valid uni card 118, the merchant terminal 116, via terminal display 132, prompts the consumer to specify whether a specific banking operation is to be performed. Alternatively, the consumer may be required to indicate, absent a terminal prompt, whether a banking operation is to be performed. If a banking operation is to be performed, the consumer selects a specific banking operation utilizing a banking operation interface comprising keys F1, F2, F3, F4 in a manner substantially similar to the procedures executed at conventional automatic teller machines. The PVBS host 102 then transfers the necessary information corresponding to the selected banking operation from the merchant system 105 to the bank host 104 and, if predetermined security clearance procedures for the selected banking operation are satisfied, a banking operation authorization signal and banking operation data associated with the selected banking operation is transferred from the bank host 104 to the merchant system 105 via the PVBS host 102.

As an illustrative example, where the consumer wishes to process a check cashing transaction via the merchant terminal 116, the transaction data is transmitted from the merchant host 106 to the bank host 104 via the PVBS host 102. In response to the request for cashing a check at the point of sale, the bank host 104 initiates a predetermined security clearance procedure according to usual banking industry business practices. If the security clearance procedure indicates that the check cashing transaction is

operations may be sent directly to the bank host 104 from the merchant host 106, particularly where no expenditure transaction has been conducted at the point of sale. Alternatively, the PVBS host 102 may provide
5 communication between the bank host 104 and the merchant host 106, providing the opportunity for an assessment of a service charge for such communications.

The merchant terminal 116 illustrated in Fig. 10 is substantially the same as the transaction terminal 12
10 illustrated in Fig. 4, with the exceptions that the merchant terminal 116 of Fig. 10 includes the banking operation interface keys F1, F2, F3, F4 and a conventional "CANCEL" key for enabling the specific banking operations described above, and a "BONUS" key
15 for enabling special promotional operations linked with specific consumers, merchants, retailers, products, purchases, or services. For example, where a predetermined type of expenditure transaction occurs and is recognized at the point of sale, the "BONUS" key is
20 depressed in succession with a set of numerical keys to create a bonus code. The bonus code is transmitted to the PVBS host 102 to indicate a particular type of bonus transaction. The PVBS host 102 executes a predetermined promotional operation in response to the bonus code.

25 For example, the steps of a bonus transaction may be as follows: (i) consumer purchases a particular product, e.g. Hawaiian Punch®; (ii) point of sale attendant recognizes the purchase as one of a plurality of predetermined bonus transactions and depresses the
30 "BONUS" key followed by the numerical keys "2-3-8"; (iii) the bonus code "2-3-8", which corresponds to any Hawaiian Punch® purchase, is transmitted to the PVBS host 102; and (iv) the PVBS host 102 matches the bonus code "2-3-8" with a predetermined promotional operation
35 stored in its data storage device and executes the

free form text message to the merchant host 106 and the merchant terminal 116 is operative to reproduce the free form text message on the transaction receipt. The PVBS host 102 is programmed such that the particular free
5 form text message transmitted to the merchant host 106 is either a standard message printed for every transaction or a message which is selected and generated as a function of the characteristics of the specific transaction, the specific merchant, or the specific
10 consumer.

Having described the invention in detail and by reference to preferred embodiments thereof, it will be apparent that modifications and variations are possible without departing from the scope of the invention
15 defined in the appended claims.

What is claimed is:

3. A purchasing value banking system as claimed in claim 1 wherein said banking operation interface is operative to permit performance of a banking operation selected from the group consisting of: a deposit, a withdrawal, a funds transfer, a loan payment, a utility payment, a statement request, a request for a printed transaction history, a personal identification number change transaction, a credit card cash advance transaction, a postage stamp purchase, a traveler's check purchase, any other transaction performed at a conventional automatic teller machine, and combinations thereof.
4. A purchasing value banking system as claimed in claim 1 wherein said bank account number is stored in said bank account data storage device, wherein said bank account number corresponds to a specific bank account, and wherein said banking operation interface is operative to enable deposit and withdrawal of funds from said specific bank account via said purchasing value banking system host and said bank host.
5. A purchasing value banking system as claimed in claim 1 wherein said selected banking operation comprises a check cashing transaction and wherein said authorization signal corresponds to an authorization number.
6. A purchasing value banking system as claimed in claim 5 wherein said merchant terminal is operative to reproduce said authorization number on a check.

14. A purchasing value banking system as claimed in claim 1 wherein said purchasing value banking system host includes a call center.

5 15. A purchasing value banking system as claimed in claim 1 wherein said purchase value account information corresponds to a value accumulated as a function of an expenditure transaction executed at a merchant terminal.

10 16. A method of executing a banking operation comprising the steps of:
identifying a purchase value account number and a bank account number at a merchant terminal;
transmitting said purchase value account number and
15 said bank account number to a purchasing value banking system host in communication with said merchant terminal;
processing purchase value account information at said purchasing value banking system host as a function
20 of an expenditure transaction executed at said merchant terminal;
selecting at least one banking operation at a banking operation interface incorporated in said merchant terminal;
25 transferring information corresponding to said selected banking operation from said merchant terminal to said bank host; and,
transferring a banking operation authorization signal from said bank host to said merchant system.

30 17. A method of executing a banking operation as claimed in claim 16 wherein banking operation data associated with said selected banking operation is transferred from said bank host to said merchant system.

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21. A merchant terminal as claimed in claim 20 wherein said merchant terminal is further operative to initiate selective deposit and withdrawal of funds from a specific bank account.

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22. A point of sale redeemable purchasing value accumulation system comprising:

an authorized point of sale transaction terminal including a terminal display, a transaction record
10 printer, a consumer data recording member responsive to a consumer identifier, a transaction terminal identifier, a transaction value recording member, a redemption value recording member, and a transaction terminal data input/output port;

15 a host memory located remote from said authorized point of sale transaction terminal; and

a host controller located remote from and in communication with said authorized point of sale transaction terminal and operative to

20 calculate a transaction credit value based upon a credit rate stored in said host memory and based upon a transaction value input at said authorized point of sale transaction terminal,

25 increase an account balance in a redeemable account designated by said consumer data recording member based upon said transaction credit value,

decrease said account balance in said
30 redeemable account based upon a redemption value input at said authorized point of sale transaction terminal, and

send transaction data and redeemable account balance data to said authorized point
35 of sale transaction terminal.

28. A point of sale redeemable purchasing value accumulation system as claimed in claim 25 wherein said consumer identification card carries a plurality of consumer identifiers and wherein one of said host
5 controller and said transaction terminal is operative to prompt a consumer to select one of said plurality of consumer identifiers.

29. A point of sale redeemable purchasing value
10 accumulation system as claimed in claim 25 wherein said consumer identification card carries a consumer identifier representing a pooled redeemable account.

30. A point of sale redeemable purchasing value
15 accumulation system as claimed in claim 27 further comprising a cash register integrated with said authorized point of sale transaction terminal wherein said cash register and said transaction terminal are operative to read said consumer identifier and conduct a
20 credit, debit, and/or cash/check card transaction.

31. A point of sale redeemable purchasing value accumulation system as claimed in claim 25 wherein said consumer identification card is operative as a pre-paid
25 redeemable purchasing value card and wherein said account balance in said redeemable account corresponds to a pre-paid redeemable purchasing value of said pre-paid redeemable purchasing value card.

30 32. A point of sale redeemable purchasing value accumulation system as claimed in claim 25 wherein said consumer identification card comprises an instant issue card issued at said authorized point of sale transaction terminal.

37. A point of sale redeemable purchasing value accumulation system as claimed in claim 36 wherein said periodic profile reports comprise content selected from the group consisting of a daily transaction recap, a
5 periodic transaction recap summary, a periodic consumer retention analysis, a periodic consumer activity analysis, a periodic consumer ranking analysis, a periodic most active zip code analysis, a periodic consumer lifestyle analysis, a periodic activity usage
10 analysis, a periodic consumer activity report, and combinations thereof.

38. A point of sale redeemable purchasing value accumulation system as claimed in claim 22 wherein said
15 host memory stores consumer specific transaction information so as to enable generation of periodic consumer statements.

39. A point of sale redeemable purchasing value accumulation system as claimed in claim 22 wherein said
20 host memory stores consumer specific transaction information and consumer specific survey information so as to enable selection of a set of target consumers.

45. A point of sale redeemable purchasing value accumulation system as claimed in claim 22 wherein said host controller is further operative to decrease said account balance in said redeemable account based upon a transaction cancellation or a merchandise return.

46. A point of sale redeemable purchasing value accumulation system as claimed in claim 45 wherein when said transaction cancellation or said merchandise return yields a negative account balance, said host controller is further operative to charge a consumer system credit account in an amount corresponding to the negative balance.

47. A point of sale redeemable purchasing value accumulation system as claimed in claim 22 wherein said host controller is further operative to block input of said redemption value when a redemption blocked consumer identifier is detected by said consumer data recording member.

48. A point of sale redeemable purchasing value accumulation system as claimed in claim 22 wherein said host controller is further operative to activate and inactivate a redemption block function wherein input of said redemption value is blocked when a specific consumer identifier is detected by said consumer data recording member.

at said selected one of said plurality of authorized point of sale transaction terminals; and

send terminal specific transaction data and redeemable account balance data to said selected one of
5 said plurality of authorized point of sale transaction terminals.

52. A point of sale redeemable purchasing value accumulation system as claimed in claim 22 wherein said
10 authorized point of sale transaction terminal is operative to suspend a set of normal mode operations and enter a setup mode wherein are performed setup functions selected from the group consisting of host setup, key setup, printer setup, auto close setup, training mode
15 setup, date and time setup, account ranges setup, dial type setup, fraud control setup, debit cash-back setup, clerk identification setup, server identification setup, tip aid setup, and combinations thereof.

20 53. A point of sale redeemable purchasing value accumulation system as claimed in claim 22 wherein said point of sale redeemable purchasing value accumulation system is operative to require input of a transaction password prior to performing a password protected
25 transaction.

54. A point of sale redeemable purchasing value accumulation system as claimed in claim 22 wherein said point of sale redeemable purchasing value accumulation
30 system is operative to permit an operation selected from the group consisting of providing a recommended tip amount based upon said transaction value, recording a tip amount in addition to said transaction value, opening a customer tab, closing a customer tab, deleting
35 a customer tab, reprinting a receipt, recalling a

rate stored at a location remote from said selected participating merchant and a function of one of said net expenditure value or said total expenditure value;

5 increase said balance in said consumer redeemable account in accordance with said credit value;

 decrease said balance in said consumer redeemable account in accordance with said redemption value; and

10 issue a transaction receipt indicating said total expenditure value, said redemption value, said net expenditure value, said credit value, and said balance.

15

57. A method of accumulating redeemable purchasing value based upon a point of sale transaction comprising the steps of:

 designating a redeemable account at an authorized point of sale transaction terminal;

20 transmitting a designated redeemable account identifier and a transaction value input at said authorized point of sale transaction terminal to a host located remote from said authorized point of sale transaction terminal;

25 calculating a transaction credit value based upon a credit rate stored in a host memory located remote from said authorized point of sale transaction terminal and based upon said transaction value input at said authorized point of sale transaction terminal;

30 increasing an account balance in said redeemable account based upon said transaction credit value;

 decreasing an account balance in said redeemable account based upon a redemption value input at said authorized point of sale transaction terminal; and

35

59. A method for implementing a neutrally-branded, multi-merchant, frequent shopper program integrated with the point of sale and covering all forms of payment comprising the steps of:

- 5 identifying a set of participating merchants;
identifying at least one participating consumer;
establishing a consumer redeemable account for said at least one participating consumer;
- 10 determining a total expenditure value associated with a participating consumer expenditure transaction at a selected participating merchant;
determining a redemption value associated with said participating consumer expenditure transaction;
- 15 determining a net expenditure value associated with said participating consumer expenditure transaction, said net expenditure value being a function of said total expenditure value and said redemption value;
- 20 determining a credit value associated with said participating consumer expenditure transaction, said credit value being a function of a credit rate stored at a location remote from said selected participating merchant and a function of one of said net expenditure value or said total expenditure value;
- 25 increasing said balance in said consumer redeemable account in accordance with said credit value;
decreasing said balance in said consumer redeemable account in accordance with said redemption value; and
issuing a transaction receipt indicating said total expenditure value, said redemption value, said net
30 expenditure value, said credit value, and said balance.

62. A method of accumulating redeemable purchasing value based upon a point of sale transaction as claimed in claim 61 wherein said absolute credit value corresponds to a value indicated on an authorized system coupon, a value indicated on an authorized system rebate, or a value indicated on an authorized system absolute credit.

63. A point of sale transaction terminal operative to:
10 display and print transaction data;
detect and transmit a consumer identifier;
produce and transmit a transaction terminal identification signal;
record and transmit a transaction value;
15 record and transmit a redemption value; and
communicate with a host controller located remote from said point of sale transaction terminal so as to receive said transaction data including a transaction credit value and an account balance in a redeemable
20 account corresponding to said consumer identifier.

64. A point of sale redeemable purchasing value accumulation system comprising:
a plurality of authorized point of sale transaction
25 terminals, each of said terminals including a terminal display, a transaction record printer, a consumer data recording member, a transaction terminal identifier, a transaction value recording member, a redemption value recording member, and a transaction terminal data
30 input/output port;
a host memory located remote from said plurality of authorized point of sale transaction terminals; and
a host controller located remote from and in communication with said plurality of authorized point of
35 sale transaction terminals and operative to

a host controller located remote from and in communication with said first and second authorized point of sale transaction terminals and operative to calculate a transaction credit value

5 based upon a credit rate stored in said host memory and based upon a transaction value input at said first authorized point of sale transaction terminal,

10 increase an account balance in a redeemable account designated by said consumer data recording member based upon said transaction credit value,

15 decrease said account balance in said redeemable account based upon a redemption value input at said first authorized point of sale transaction terminal,

20 increase said account balance in said redeemable account based upon an absolute transaction credit value recorded by said absolute credit value recording member, and

 send transaction and redeemable account balance data to said authorized point of sale transaction terminal.

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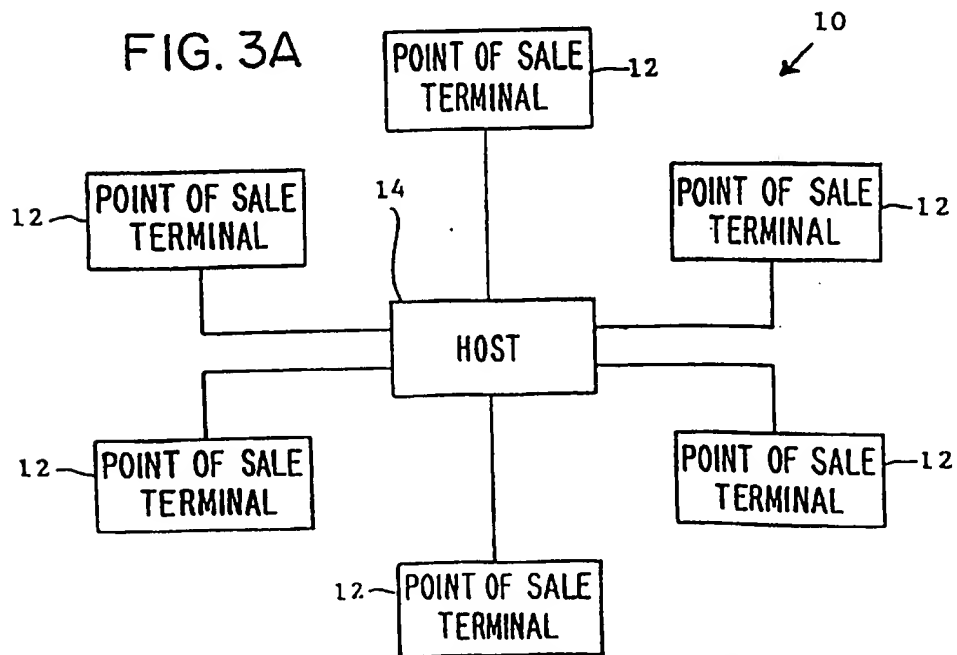
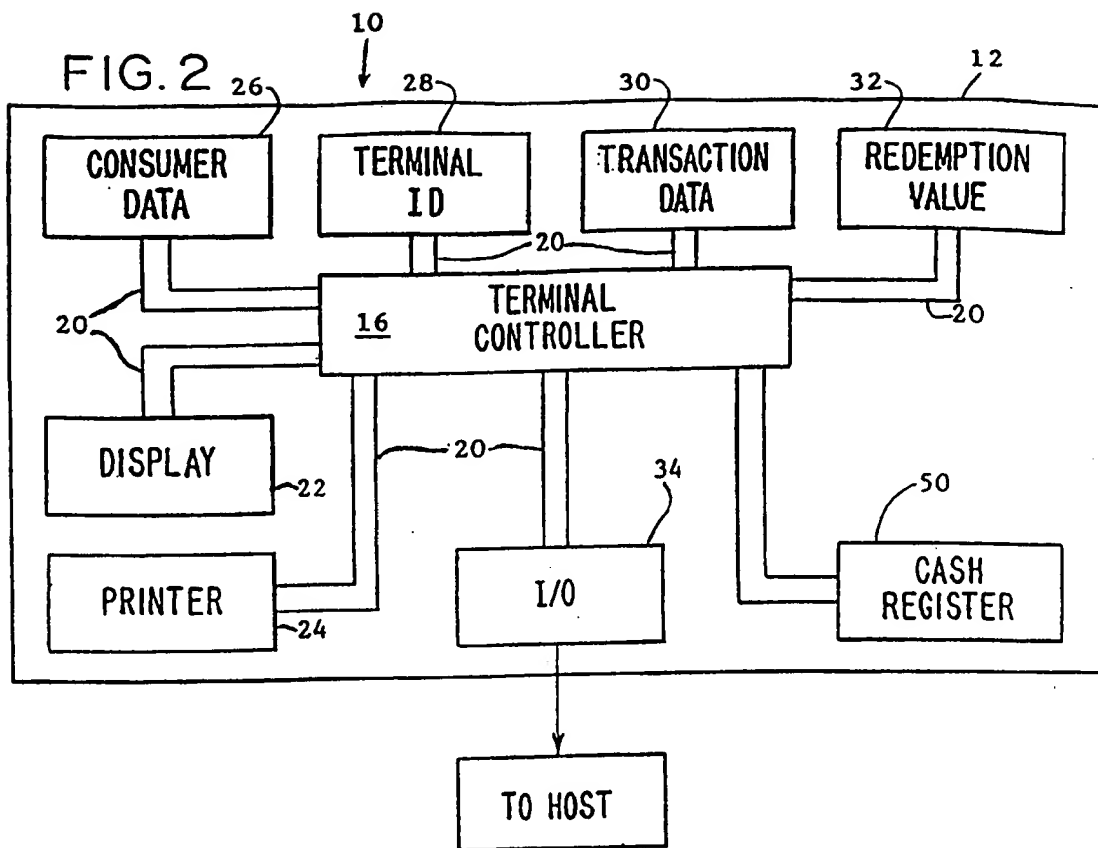


FIG. 5

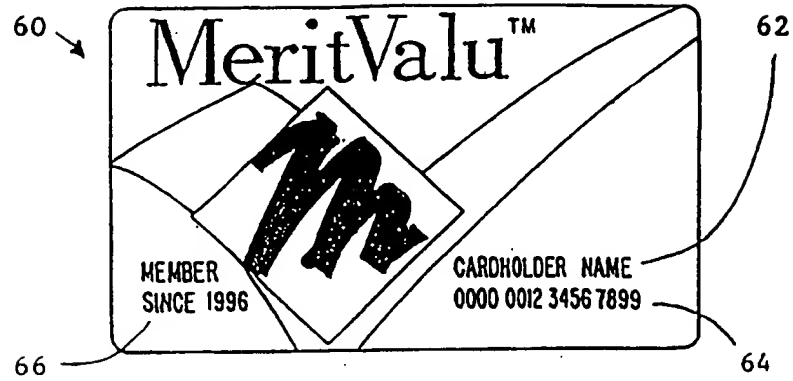


FIG. 6

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FIG. 8A

TEST MERCHANT RESTAURANT TERMINAL
MERCHANT ADDRESS
CITY ST ZIP
PHONE

DATE: 05/14/96 TIME: 03:30 PM
ACCT# 00277
CARD TYPE MERIT VALU
TRAN TYPE MERITVALU
TERMINAL # 12345002
AUTH CODE APPROV
RECORD # 004

AMOUNT \$13.82

HERITVALU

HERITVALU MONEY:
EARNED \$0.69
CURRENT BALANCE \$58.74

THANK YOU

HAVE A NICE DAY
PLEASE COME AGAIN

TOP COPY-MERCHANT BOTTOM COPY-CUSTOMER

FIG. 8B

TEST MERCHANT RESTAURANT TERMINAL
MERCHANT ADDRESS
CITY ST ZIP
PHONE

DATE: 05/14/96 TIME: 03:19 PM
ACCT# 00187
CARD TYPE MERIT VALU
TRAN TYPE MERITVALU
TERMINAL # 12345002
AUTH CODE APPROV
RECORD # 002

AMOUNT \$45.75
REDEMPTION AMT \$-25.00
AMOUNT DUE - 20.75

X_____

REDEMPTION

HERITVALU MONEY:
EARNED \$1.04
REDEEMED \$-25.00
CURRENT BALANCE \$56.31

THANK YOU

HAVE A NICE DAY
PLEASE COME AGAIN

TOP COPY-MERCHANT BOTTOM COPY-CUSTOMER

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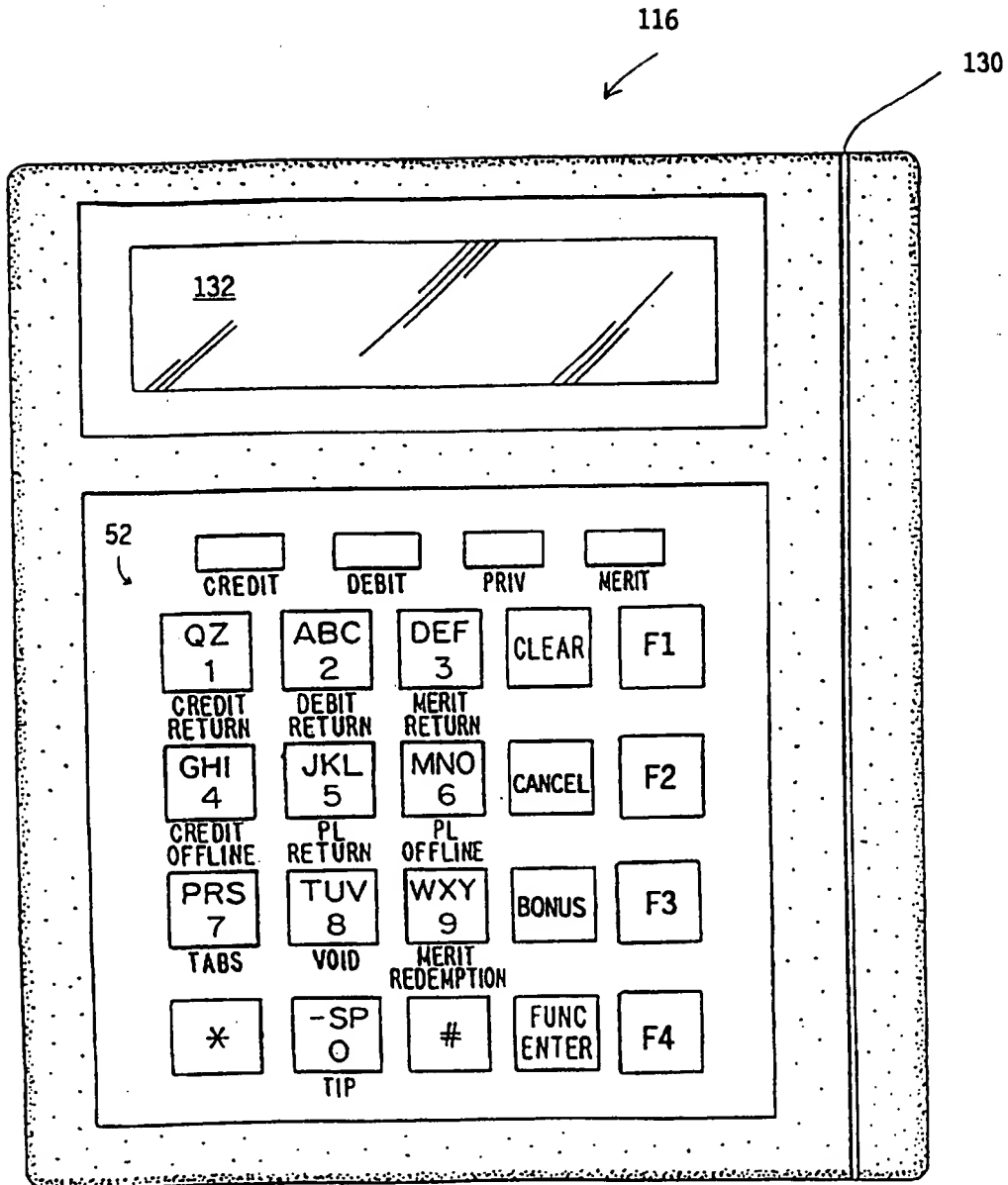


Fig. 10

SUBSTITUTE SHEET (RULE 26)

INTERNATIONAL SEARCH REPORT

Int. Patent Application No.
PCT/US 97/09085

A. CLASSIFICATION OF SUBJECT MATTER IPC 6 G06F17/60		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 6 G06F		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 287 268 A (MCCARTHY PATRICK D) 15 February 1994 cited in the application see abstract; figure 1 see column 1, line 35 - column 1, line 38 see column 5, line 40 - column 6, line 61 ---	1-65
X	ANONYMOUS: "Portable Self Checkout Retail System." IBM TECHNICAL DISCLOSURE BULLETIN, vol. 35, no. 1A, June 1992, NEW YORK, US, pages 315-318, XP000308880 see the whole document --- <div style="text-align: center;">-/--</div>	1-65
<div style="display: flex; justify-content: space-between;"> <input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex. </div>		
<div style="display: flex;"> <div style="flex: 1;"> <p>* Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> </div> <div style="flex: 1;"> <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</p> <p>"Z" document member of the same patent family</p> </div> </div>		
Date of the actual completion of the international search <div style="text-align: center;">24 October 1997</div>		Date of mailing of the international search report <div style="text-align: center;">19. 11. 97</div>
Name and mailing address of the ISA European Patent Office, P.O. 5618 Patentplan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax (+31-70) 340-3016		Authorized officer <div style="text-align: center;">Gardiner, A</div>

INTERNATIONAL SEARCH REPORT

Information on patent family members

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